WHAT IS CLAIMED IS:

1. A process for producing an aromatic carboxylic acid, comprising the step of reacting an aromatic compound (C) with carbon monoxide (D) and molecular oxygen (E) in the presence of a palladium compound catalyst (A) and a catalyst (B) to thereby yield an aromatic carboxylic acid corresponding to the aromatic compound (C) except with one or more carboxyl groups bonded to its aromatic ring,

the catalyst (B) comprising:

- a heteropolyacid or a salt thereof (B1); and/or
- a mixture of oxo acids and/or salts thereof (B2),

the mixture (B2) containing, as a whole, one of P and Si and at least one selected from the group consisting of V, Mo and W.

- 2. The process according to claim 1, wherein the heteropolyacid or a salt thereof (B1) contains, as its constitutional elements, one of P and Si, and at least one selected from the group consisting of V, Mo and W.
- 3. The process according to claim 1 or 2, wherein the heteropolyacid or a salt thereof (B1) is a phosphovanadomolybdic acid or phosphomolybdic acid represented by the following formula:

A_{3+n} [$PMO_{12-n}V_nO_{40}$]

wherein A represents at least one selected from the group consisting of hydrogen atom, NH_4 , an alkali metal and an alkaline earth metal; and n is an integer from 0 to 10, or a salt of them.